

Serial No.: 09/884,466

**In the Claims**

The listing of claims will replace all prior versions, and listing, of claims in the application.

Claims 1-12 (Canceled)

13. (Previously presented) In a method for treatment of a disease in a subject by ionizing radiation therapy wherein the ionizing radiation therapy causes side effects in the subject, the improved method comprising administering to the subject a side-effect reducing amount of a medicine comprising a selective cyclooxygenase-2 inhibitor as the effective agent, the selective cyclooxygenase-2 inhibitor being effective to decrease radiation-caused gastrointestinal effects, radiation-caused fatigue, reduce radiation-caused diarrhea; reduce radiation-caused rectal bleeding, and reduce symptoms of radiation-caused urinary frequency, dysuria, and/or nocturia.

14. (Previously presented) The method of claim 13, wherein the cyclooxygenase-2 inhibitor is refecoxib.

15. (Previously presented) The method of claim 13, wherein the cyclooxygenase-2 inhibitor is celecoxib.

16. (Withdrawn). The method of claim 13, wherein the reduced side-effect comprises radiation-caused effects on the gastrointestinal tract.

17. (Canceled)

18. (Withdrawn) The method of claim 13, wherein the radiation-caused side effect is diarrhea.

19. (Withdrawn) The method of claim 13, wherein the radiation caused side effect is rectal bleeding.

**Serial No.: 09/884,466**

20. (Withdrawn) The method of claim 13, wherein the radiation-caused side effect is urinary frequency.

21. (Withdrawn) The method of claim 13, wherein the radiation-caused side effect is dysuria.

22. (Withdrawn) The method of claim 13, wherein the radiation-caused side effect is nocturia.

23. (Previously presented) The method of claim 13, wherein the cyclooxygenase-2 inhibitor is administered orally, topically, parenterally, or by inhalation spray.

24. (Previously presented) The method of claim 23, wherein the cyclooxygenase-2 inhibitors is administered as a tablet, troche, lozenge, aqueous or oily suspension, dispersible powder or granule, emulsion; hard or soft capsule, syrup or elixir.

25. (Previously presented) The method of claim 24, wherein the selective cyclooxygenase-2 inhibitor is administered in a dosage amount of about 0.01 to 200 mg/kg of body weight of the subject.

26. (Previously presented) The method of claim 25, wherein the selective cyclooxygenase-2 inhibitor reduces the side effects by at least 25%.

27. (Previously presented) In a method for treatment of a disease in a subject by ionizing radiation therapy wherein the ionizing radiation therapy causes side effects in the subject, the improved method comprising administering to the subject a side-effect reducing amount of a medicine comprising a selective cyclooxygenase-2 inhibitor as the effective agent, the selective cyclooxygenase-2 inhibitor being effective to decrease radiation-caused fatigue.